202. Passer domesticus. English Sparrow.— In 1882 we saw the English Sparrows at Galveston and Houston. They came to Kerrville on December 12, 1897, and came to stay. They nested at the ranch for the first time in 1909, but were often here in the winter long before then.

A DROP OF FOUR THOUSAND FEET.

BY FLORENCE MERRIAM BAILEY.

Our last mountain camp of the field season of 1906 was at 8500 feet in the New Mexico Mogollons. Even in New Mexico an 8500 foot camp after the middle of October is apt to be a trifle chilly, so we pitched our tents on the warm slope of the cañon under the yellow pines, laying logs against the outside walls of the tents to keep out the wind, and noting with satisfaction that there was abundant fuel close at hand for big camp fires. A few rods below the tents Willow Creek — a clear sparkling mountain brook that heads the middle fork of the Gila — ran at the foot of a handsome fir and spruce wall whose crest at sunset caught the last yellow light slanting across the forest.

In the morning when the sun reached the trees in front of the tent small voices would be heard and a flock of hardy mountaineers—Chiekadees, Pygmy Nuthatches, and Brown Creepers—would fly in filling the air with their gentle talk. Beyond camp up the narrow winding gulch of Willow Creek along which was kept a line of small mammal traps, in the sunny bends of a morning Chestnut-backed Bluebirds and Audubon Warblers would fly before us and flocks of Juncos rise with a startled twitter and a flash of white outer tail feathers. Some of the Juncos when flying showed a band of pink along the sides and, as was proved when our specimens reached the Biological Survey, representatives of nearly every resident, migrant, or wandering Junco of those mountains, including the Slate-colored, Intermediate, Montana, Pink-sided, Ridgway's, and the Gray-headed, had gathered in that particular gulch or its neighborhood on the

approach of winter. It was such good hunting ground that a Sharp-shinned Hawk was taking advantage of it.

A Dusky Grouse had been seen on the way into the mountains, recently made tracks were discovered on the bank of Willow Creek, and fresh sign was found later on the ridges above; but most of the birds had probably been killed off by the summer hunting. The Wild Turkeys that were left in the mountains doubtless went below to escape the storms for no tracks were seen except when we first reached Willow Creek, and some prospectors who came up the Gila told us that they had encountered a large number below, including bronze-colored gobblers.

Well protected by their fur coats, small mammals were plentiful. Twenty-four specimens were found in the line of traps along the gulch one morning, including a shrew, and various small mice and wood rats; while saucy red squirrels scolded us from the evergreen tops over the brook, and one day when camp was quiet two handsome gray Abert squirrels with long winter ear tufts chased each other around and around a yellow pine trunk.

Attracted perhaps by the abundance of small mammals were several hawks and owls — a Sparrow Hawk, three Red-tails, one a very black melanistic bird, a Pygmy Owl, and a pair of Spotted Owls. The Spotted Owls apparently made their home in the firs and spruces on the wall of Willow Creek, for their curious varied calls were heard at camp nearly every night, often just at daybreak, and once before dark; so different from the Horned Owl that it was noticed by the camp man. "He's not the owl that makes that hootin' noise?" the puzzled listener asked. On moonlight nights the two birds were heard answering each other, a soft conversational who-who-who-who-who-who, being replied to by a sharp wheek-wheek-wheek-wheek. One of the commonest calls was a short bark, and another was who-who-whoo' the last whoo brought out with great emphasis. When some new calls from the varied repertoire of Strix were heard, the man looked up. "That aint the kind o' tune he played the other night, is it?" he asked, and then as the concert continued - "What makes him make such a noise? I should think he'd scare away all his game."

In the day time flocks of striped Pine Siskins — on two days a band of probably a hundred birds — wandered up and down the

creek, now in a compact flock, now straggling out; stopping to visit the cone-laden spruce tops, then going on to the alders where, bending over the little cones they showed their yellow wing bands, then up and away giving their lovely eolian call on the wing. The unmistakable welcome notes of a flock of Crossbills were also heard in the canon.

Robins, Ruby Kinglets, Long-crested Jays, and a number of Woodpeckers were seen in the region. Borings apparently of the Pileated were found in the timber from 8500 to 9600 feet, and the Alpine Three-toed Woodpecker was found at 10,500 feet. At about 11,000 feet a Cassin's Finch was shot.

While we were absorbed in watching the birds and beasts of the cañon, heavy winds and black clouds gathering around the mountain tops were followed by snow, and a Clarke's Crow came down from the peaks to the tree tops above camp. The next morning ice was an inch thick on the water pail, and in the cold dark cañon one pool was frozen so deep that it held the weight of a man. By some open water an Ouzel stood on a stone with its feathers fluffed up. But though looking cold it flew down into the water, hopped out onto a cake of ice and stood there as unconcernedly as if on a sun-warmed rock.

More snow fell and it kept getting colder till on the morning of the twenty-fourth of October — the day after the last thrush was seen — the mercury stood at 14° Fahr. by our camp thermometer which registered so little below that the temperature was probably nearer zero. That day Mr. Bailey ran a zone line to the top of the 11,000 foot peak above us, and saw white-tailed deer and followed tracks of a mountain lion through the snow. Down in camp it was cold work writing up notes even with big logs blazing in front of the tent.

When the snowstorms had cleared the sky we had glorious days. The air was as clean and strong as on a mountain top and the sky such a deep dark blue it was hard to keep one's eyes on the ground. At night in the evergreen openings, the moonlight on the snow was doubly good to look at in New Mexico, and revived memories of beautiful white northern winters.

But soon a second storm began gathering around the peaks, black clouds hanging low over them and wind whistling through the spruces. If we stayed till the storm came we might get snowed in. It was now the last of October and the Forest Ranger at Mogollon had said that it was "generally hard to get in or out of this country after the first of November," that sometimes the snow was seven feet deep here. To provide against trouble he had given us the key to a cabin two miles below that held emergency supplies, but we were not prepared for winter and having no snowshoes, if caught by a storm might have to wade seventeen miles through the snow. We decided to go out while we could drive out!

Breaking camp in a cold rain we climbed 500 feet up a steep wet trail to the top of the cañon and the wagon road; and the next morning after driving across long miles of a road recognized as fit only for pack trains, went down 2600 feet on a steep slippery lumber grade to the mining town of Mogollon near which we spent the night; the following morning climbing up 450 feet, and then dropping down the 1500 foot Mogollon grade across the rocky face of the bare southwest slope of the mountains — a striking contrast to the heavily-timbered northeast slope from which we had come — we finally reached the stage station of Glenwood at the junction of White Water Creek with the San Francisco River.

We had come down 4000 feet in twenty-eight hours, from 9000 feet at the top of Willow Creek Cañon to 5000 feet at the foot of the Mogollon Mountains. After rattling down the cold mountain grades we were glad to camp here for a few days work, pitching our tents in a little amphitheater that was warm and still, and filled with sunny nut pines and junipers. Bordering the river below us were glistening live oaks and broad-leafed cottonwoods that glowed with a lovely languorous yellow in the warm afternoon sunshine while cobwebs floated on the quiet air and the gentle voices of lowland Quail made sweet music. Looking back up the Mogollons, storm clouds shrouding the peaks made us thankful that we had escaped in time. It was pleasanter to sit safe and warm below and watch the pink sunset light on the mountains than to be wading in seven feet of snow!

"The grasshoppers are squeaking up on the hill!" some one called out, and after a moment, the camp man's deliberate voice responded dryly—"We did n't hear many over on Willow Crick!"

From listening to Spotted Owls barking from the moonlit firs

and spruces of the snow-covered Canadian cañon above we now listened to Sonoran Bush-tits and Gambel's Quail among the nut pines and junipers. A flock of the Quail roosted not far from our tent in the protected amphitheater and when gathering in and getting settled at dusk, above the variously accented calls rose one in anxious high-pitched tones drolly like a distracted voice calling Where-are-you-'now? Where-are-you'-now? Soon after day-light, hearing small voices approaching and raising our heads from our sleeping bags we saw an advancing procession of the plump Quail with recurved top knots over their bills, their black throats and buffy belly patches conspicuous as they faced us. On they came, talking in low tones, but suddenly a warning tut, tut, interrupted their conversation. They had discovered the cook at his camp fire! A few steps more and they stopped, standing in two pretty squads under the junipers.

Just over the bank another flock of about twenty-five Quail were flushed from a field bordering the San Francisco, the Rio San Francisco which we had forded fifty-two times in one cañon a few weeks before! Following up the banks of the river we found Meadowlarks, Killdeer, and Ravens, and spoke with an old hunter going to a pond back of the dam for Teal; but then we came to a cañon where the swift stream with its usual disregard of travelers was swinging against one and then the other of its sheer walls, so we turned off into a dry gulch. The gulch proved to be richly wooded with sycamore, ash, box elder, cottonwood, mulberry, live oak, and soapberry, and was so full of birds that it was hard There were Woodhouse Jays squawking, a little Texas Woodpecker with barred back giving its shrill call as it drilled on the oaks, Audubon Warblers jerking out their sharp tchack', Gray Titmice whistling, and fascinating little Bridled Titmice flitting about the trees singing a tinkling Chickadee song; while invisible Cañon Towhees, Rock Wrens, and a Scott Sparrow kept us peering up the stony banks of the gulch. On a mesquite flat above the gulch Pipits from the peaks were seen.

We had left the snowy Canadian mountains deserted by all but a few of the hardier birds and by our 4000 foot drop, paralleling the vertical migration, had come down into the warm Sonoran valley where the weeds were still full of seeds and the trees of

[Ank April

berries, and birds were gathered in happy throngs. They were everywhere. The air was full of their calls and fall songs, and wherever you went, from weed, bush, and tree they flew before you. The weed patches were rustling with Juncos, Chewinks, and Sparrows, Song and White-crowns — no White-crowns had been seen on Willow Creek after the first snowstorm and only one Song Sparrow had been heard. The junipers and nut pines were full of talkative Bush-tits, chattering Ruby Kinglets sometimes giving a snatch of song, and House Finches and Bewick Wrens singing gaily — what a clear loud ringing song the Wren has! Bluebirds (bairdi) were seen on all sides. There were Robins, Mourning Doves, Flickers, Horned Larks, Sav's Phœbe, Cañon Wrens, flocks of Goldfinches and Redwings, and a variety of Hawks— Red-tailed, Sparrow, Sharp-shinned, and Marsh — while Solitaires whistled a clear one-syllabled hip, hip, hip, and on warm days gave their full fall song. Brown Creepers were seen 3500 feet lower than they had been noted a few days before, and one was actually found on a Lower Sonoran mesquite instead of his native Canadian fir and spruce. A small flock of Siskins also reminded us of Willow Creek, but instead of cone seeds they were eating sunflower seeds.

Ignorant of the fact that most of the birds had left the mountains, a boy whom we saw was planning a hunting trip to them with a freighter. He was going to take one burro just for ammunition, he boasted, for he shot everything he saw down to snowbirds!

On the freight road our attention was attracted to a dooryard with a flagpole flying an American flag — unusual in rural New Mexico — and still more surprising, two stuffed White-faced Glossy Ibises perched on the fence! Inside the house we were pleased to find a family of Germans. The Ibises, together with a Blue Heron which stood on the parlor mantelpiece, had been shot along the river — which added to our list of valley species. The apologetic taxidermist said the birds were so handsome she wanted to save them, and having nothing better had put them up with tobacco and camphor gum, making eyes for the Ibises with black buttons and yellow satin!

At the next stage station, Lee's Station, a ranch just below the juniper and nut pine slopes of the mountains to which the Wild

Turkeys come, the old man Lee who kept tame turkeys told us of an amusing experience he had had the previous night. He had gone up the guleh back of his house and while there had seen an old gobbler, and thought he'd drive him home. But when approached the turkey ran away from home — and when chased got up and flew! Surprised at this strange behaviour the old man went on down to the ranch. Passing his hen house he looked in and — there was his gobbler inside! Perhaps the turkey he had chased was one whose tracks we had seen on Willow Creek!

NOTES ON THE FRUIT-EATING HABITS OF THE SAGE THRASHER IN THE YAKIMA VALLLEY.

BY CLARENCE HAMILTON KENNEDY.

THE broad sage-covered stretches of the lower Yakima Valley, with the barren hills enclosing it, lie in the Transition and Upper Sonoran Zones. Only a narrow strip a few miles wide down the center of the valley has been reclaimed by irrigation and the brown desert displaced by green fields and orchards.

It is in this sage brush land above the irrigated area that the Sage Thrashers (Oreoscoptes montanus), after arriving in the spring, nest and live until the young are eapable of extended flight. During the nesting period they are the best singers of any of the sage brush inhabitants. They are also the most wary, for seldom can a person on foot approach one nearer than fifty yards.

During the latter half of May, families of Sage Thrashers drift down into the irrigated ranches and begin their season of fruiteating with the black-cap raspberries, which are then beginning to ripen. By this time the young, though still associating with the older birds, are capable of searching out their own food. With this independence of the young, the habits of the Sage Thrashers change very markedly. After this the snatches of whimsical song are rarely heard. From birds with a burst of song after every